

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/GB2005/001011

International filing date (day/month/year)
16.03.2005

Priority date (day/month/year)
26.03.2004

International Patent Classification (IPC) or both national classification and IPC
H04L29/06

Applicant

BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - in written format
 - in computer readable form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims	2,6	"
	No:	Claims	1,3-5,7-11	
Inventive step (IS)	Yes:	Claims		
	No:	Claims	1-11	
Industrial applicability (IA)	Yes:	Claims	1-11	
	No:	Claims		

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

Re. Item V

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. The following documents cited in the International Search Report have been considered in this report:
 - D1: US 2003/053416 A1 (RIBAS-CORBERA JORDI ET AL.) 20 March 2003 (2003-03-20)
 - D2: US-B1-6 397 251 (GRAF MARCEL) 28 May 2002 (2002-05-28)
 - D3: GUOJUN LU AND CHESTER KANG: "An Efficient Communication Scheme for Media on-Demand Services with Hard QoS Guarantees" JOURNAL OF NETWORK AND COMPUTER APPLICATIONS, [Online] vol. 21, no. 1, January 1998 (1998-01), pages 1-15, XP002328926 retrieved from the Internet: URL: <http://www.gscit.monash.edu.au/~guojunl/qos.pdf>; <http://www.gscit.monash.edu.au/~guojunl/publication.html> [retrieved on 2005-05-20]
 - D4: YEOM H. Y. ET AL.: "An efficient transmission mechanism for stored video" PROTOCOLS FOR MULTIMEDIA SYSTEMS - MULTIMEDIA NETWORKING, 1997. PROCEEDINGS., IEEE CONFERENCE ON SANTIAGO, CHILE 24-27 NOV. 1997, LOS ALAMITOS, CA, USA, IEEE COMPUT. SOC, US, 24 November 1997 (1997-11-24), pages 122-130, XP010258820 ISBN: 0-8186-7916-6
 - D5: McMANUS J. M. ET AL: "VIDEO-ON-DEMAND OVER ATM: CONSTANT-RATE TRANSMISSION AND TRANSPORT" IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS, IEEE INC. NEW YORK, US, vol. 14, no. 6, 1 August 1996 (1996-08-01), pages 1087-1098, XP000608049 ISSN: 0733-8716
2. Claim 1 does not meet the novelty criteria of Article 33 (1) and (2) PCT.
 - 2.1. Document D1, which is considered to represent the closest prior art, discloses, according to all the features of claim 1:

a method of transmitting a recording (par. [0003]) comprising:

commencing transmission thereof (par. [0004]);
holding received data in a receiver buffer (par. [0004]); and
commencing playing of said received data (par. [0004]); comprising the steps of analysing the whole of the recording to determine a point at which to commence playing (par. [0008]) such that no buffer underflow can occur (par. [0002]); and commencing playing only when this point has been reached (par. [0002]).

- 2.2. Moreover, all the features of claim 1 are also disclosed in D2-D5 (passages cited in the international search report).
3. Independent claim 2 additional features (their lack of clarity notwithstanding - see details in section VIII), do not appear to involve an inventive step.

Indeed, their corresponding subjective technical problem - namely, that of determining the initial startup delay - is already known from all cited documents D1-D5.

The technical solution thereof, as indicated both in the present application and in the cited prior art, consists of a pure mathematical algorithm. Thus, assessing the inventive step of the distinguished technical features of claim 2 seems to be reduced to the mere comparison between various alternative algorithms. In conclusion, claim 2 does not seem to involve any objective technical problem or underlying technical effect, above its purely abstract, intellectual subject-matter, which per-se is excluded from the international search and preliminary examination (Guidelines PCT 9).

4. The dependent claims 3-11 do not present additional features with inventive significance over the independent claims on which they are appended, as their features are either already known or easily derivable from the prior art (instruction, first section, sequence portions, marking in advance, estimating, audio / video are all known from D1 - par. [0008], [0009], [0033] - [0035],), or are common measures (withholding the initial part in order to avoid an explicit startup command, claim 6). Thus, dependent claims 3-5 and 7-11 do not meet the novelty criteria of Article 33 (1) and (2) PCT and dependent claim 6 does not meet the inventive step requirements of Article 33 (1) and (3) PCT.

Re. Item VII

Certain defects in the international application

1. The independent claims are not correctly drafted in the two-part form in accordance with Rule 6.3(b) PCT, with those features known in combination from the prior art (D1) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
2. Contrary to the requirements of Rule 5.1(a)(ii) and (iii) PCT, the relevant background art disclosed in the documents D1-D5 is not mentioned in the description, nor are these documents identified and discussed therein.
3. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Re. Item VIII

Certain observations on the international application

1. Although claims 1 and 2 have been drafted as separate independent method claims, they appear to overlap and to relate effectively to the same subject-matter. The aforementioned claims therefore lack conciseness, thus not meeting the requirements of Article 6 PCT.
2. Claims 1 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not clearly defined. The claim attempts to define the subject-matter in terms of the result to be achieved ("such that no buffer underflow can occur"), which merely amounts to a statement of the underlying problem, without providing the technical features necessary for achieving this result (Guidelines PCT 5.35).

Such a formulation is furthermore not supported by the description, since it covers

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any possible solution to the stated problem, whereas the whole description refers explicitly to only one such solution (Guidelines PCT 5.35, 5.43; Article 6 PCT).

3. The definition of the timing error in claim 2 as "the extent to which ..." it is also not clear, being again formulated more like a statement of the result to be achieved (Guidelines PCT 5.35; Article 6 PCT). Thus, the condition to be met in order to start playing is not clear. Also the description passage supporting such formulation could not be identified (Guidelines PCT 5.35, 5.43; Article 6 PCT).
4. An antecedent definition is missing for "the sequence" from claim 5 (Art. 6 PCT).
5. In fig. 1, reference sign 33 refers to a "decode", while according to the description (p. 2, line 28) it should refer to a "decoder". Also, in fig. 4, reference sign 107 is used twice for different features (according to the description, p. 7, line 13, the first occurrence should have been 112 instead).